

COMMISSIONERS APPROVAL

ROKOSCH 

GRANDSTAFF

THOMPSON

CHILCOTT 

DRISCOLL 

PLETTENBERG (Clerk & Recorder)

Date.....January 4, 2008

Members Present.....Commissioner Carlotta Grandstaff, Commissioner Jim Rokosch, Commissioner Alan Thompson, Commissioner Greg Chilcott and Commissioner Kathleen Driscoll

Minutes: Beth Perkins

► The Board met with Road & Bridge Supervisor David Ohnstad for an update. The agenda consisted of discussion and decision on Lost Horse Quarry, Meridian Road, Clark Street, Upper Woodchuck Road; Engineering & Surveying services; and discussion of the Stevensville Gravel Mine and Dust Abatement.

Commissioner Grandstaff called the meeting to order. She stated there were a number of public phone calls requesting the decision on Lost Horse Quarry be postponed until January 11th. She stated while there was 48 hour notice, she does not feel it gave ample time for citizens to respond to the notice. The Board will take public comment but the decision will not be made until January 11th, which will allow concerned citizens the ability to attend.

David stated in the past they have worked with the Bitterroot National Forest for cooperative mutual agreements and had success. They are now trying to identify new ways to leverage their resources to benefit the citizens of Ravalli County. He has revised the past proposal for Lost Horse Quarry. The Board has taken in public comment on the Lost Horse Quarry and reviewed all materials submitted. David stated the major concern seems to be the amount of traffic on the Lost Horse corridor.

David gave an update of the Lost Horse Quarry and stated there is a need for the material from the quarry to complete projects scheduled for this summer. He believes they have mitigated the concerns raised by the residents and citizens and the Forest Service has done the same. Commissioner Driscoll asked David about the total cubic yards. David replied it is 2500 cubic yards for a period of 10 years totaling 25,000 cubic yards.

Susan Behrman asked about an estimated 75,000 cubic yards. David clarified the total cubic yards being 25,000 cubic yards for 10 years usage but extracted for only 5 years. Commissioner Driscoll asked about the State of Montana usage of riprap. Her concern is the figures of stockpiles. David replied the material is expensive to purchase. They have the opportunity to use "loose fall" rock at the quarry. He stated it is an economical way to deal with the issue.

Commissioner Driscoll stated they are talking about aggregate and riprap. She stated as an elected official, it is her responsibility to look at the stockpile requirements. There is an estimated 100 cubic yards used a year. She needs to know how much need there is for the 25,000 cubic yards. She asked how much cubic yards are used per year. David replied 1,570 for the projects identified now for the next 10 years. There are years they will use more and years they will use less. David stated the issue is the high cost of material and that now we have a resource for it. Commissioner Driscoll stated she obtained some numbers from other counties for the true use of riprap. Missoula County used only 90 cubic yards. Lake County used only 100 cubic yards. She asked how realistic is the estimated use? David reiterated the projected need of 2500 cubic yards.

Commissioner Rokosch stated he is still not clear on the use. He requested some clarification and details of a needs assessment. He stated it is already stockpiled at the site. He asked if they could use it as an "as need" basis. David replied it is an opportunity to cooperate with Forest Service and segregate out the material, utilizing the crushing plant. And while it is an extra step, it is a reasonable cost.

Chuck Oliver from the Forest Service stated he does not have a lot to add as far as the numbers go. He has worked with the Road Department on numerous projects and believes the issues have been mitigated and the quarry will be there for use. He stated the upper portion of Lost Horse Road is in need of road repair. Commissioner Grandstaff asked if Chuck is going to continue to do his projects from another source. She discussed the option of leaving the riprap boulders there and having the Road Department using them when needed without bringing the crusher to that location. If that is not the case, would the free armor rock be off the table and then for sale? Chuck replied yes. Commissioner Chilcott stated the Forest Service will do work at Twin Lakes whether or not they get the gravel from the Road Department. His concern is with the gravel being brought in from somewhere else and the traffic conditions being in question.

Commissioner Grandstaff opened public comment.

Mark Behrman stated he lives on Lost Horse Road. He directed a question to Chuck for a comment made by Rich Raines for the county to take over the road. He asked for clarification of the liability and giving free material to the Forest Service. Commissioner Chilcott replied the Board has not accepted the road and it is a separate issue. David replied there is a portion of Lost Horse Road currently under the maintenance of the Road Department.

Bob Oset stated Forest Service has a Capital Improvement Plan program funded from Congress directly. When is it coming? Chuck replied in 2009. He then asked David if it is a 5 year proposal or a 10 year. David replied it is a 5 year proposal. Bob clarified it is a 5 year proposal for quarrying but 10 years to remove it. Bob stated he does not have a problem with a truck driving up and down the road. His problem is the running of the crusher at the site. David replied the crusher is not projected to stay there every year.

Bill Green stated his concern is the safety of the road. He stated the Forest Service has stated they do not have the money to repair the road. When they do get the money how will it be done to compete with the truck traffic versus public? He stated he is not sure of the environmental impacts. Chuck stated there are no plans to widen the road. Bill replied then they have a problem.

J.C. Howell asked if Chuck Oliver set the amount of aggregate for these projects. Chuck replied yes. J.C. asked if it is close to the amount projected for stockpile. Chuck replied the Schumacher Campground project has been estimated but there are other projects they are considering. J.C. stated the material has a shelf life of 100+ years and it is to be used 10 years. He asked how that can compare to the amount being requested to be quarried. David replied what they have laid out in the proposal would show the limits in common understanding. J.C. asked with a common understanding, couldn't that be changed at any time? David replied it is up to the County Commissioners.

Stewart Brandborg stated they have seen a standing of public concern on the Lost Horse Quarry. People have expressed wide spread concern over this project. He asked how long they invest their time and efforts on a project the public doesn't want to happen. Let this no longer take up our lives, thoughts and energy. He then asked what do the public's thoughts and efforts mean to the Commission?

Senator Jim Shockley stated he supports the Road Department. He does not want to hear "them" and "us". He stated whether he pays for a road on his county tax dollar or federal tax dollar, he is still paying for the road. David stated they will operate the crushing plant 4 to 6 weeks initially, and once more in a 5 year period. Jim asked about the purpose of the pit crusher. David replied the operation for the quarry is to separate out the armor rock and produce road materials. Jim asked how much would the Forest Service have to pay for the material. David replied in the neighborhood of \$1,100 dollars plus the transport of the material. Jim asked if that is \$2.60 per ton. David replied yes. Jim asked Commissioner Driscoll if her figure was \$27 per ton. Commissioner Driscoll replied yes. Jim replied he does not believe \$27 per ton is reasonable. Pat Tucker replied she worked with Commissioner Driscoll and the \$27 per ton is for chip seal material. Pat stated it was a total figure for production with transportation. Actual cost is \$5.50 per ton to produce.

Jim stated Lost Horse Road is the only drivable access to the wilderness. He went up Twin Lakes Road and bent the steel frame on a trailer. He would like to see Forest Service maintain the road and repair it. He stated if his tax dollar was spent on the road to begin with, he wants it fixed. He stated road construction inconveniences the residents

but how much inconvenience comes from the road being in that condition. He is in favor of the project.

Commissioner Rokosch replied he has concern with Senator Jim Shockley's characterization of the use of tax dollars. He stated as an elected official, he is responsible for the taxpayers of this county. There are a lot of additional taxpayers who use the roads. How much are the county taxpayer's responsibility and the amount of tax dollars going into this partnership? Commissioner Driscoll stated she agrees with Commissioner Rokosch. The problem is sometimes you cannot take the broader view because of either the law or the budgetary constraints. It is her job to get the facts and details. Commissioner Chilcott stated the Road Department is funded by a portion of county tax; but it is mostly funded by State taxes.

Michael Howell stated he is shocked by the remarks from Senator Jim Shockley. He has never seen him in favor of spending local tax dollars for federal projects. His concerns are with Commissioner Driscoll's figures compared to the figures in the proposal. He would like to see the projects scheduled for the use of the materials before going forward. He urged the Board to get the information prior to a decision. David replied yes there is a certain amount of wrong information but it is not from the Road & Bridge Department. He stated the Road & Bridge Department does work with Fish, Wildlife and Parks. He does not know the Missoula County's need for aggregate and frankly, he does not care. It is not rumor or speculation; the county employees are the ones providing this information. Commissioner Driscoll stated she is not questioning the county employees but questioning David. David asked her where she is getting the information from because Commissioner Driscoll is not asking him these questions. Commissioner Driscoll replied she has asked David these questions and it is her job to do so. She also noted some of those questions she has asked him have still not been answered.

David stated he is standing by his earlier statement. There is a 30 year backlog of these projects. There is a 7 year capital improvement project. Commissioner Rokosch stated you have to look at the costs of outsourcing for the materials versus the cost of obtaining it locally. He stated in his seat, it is his responsibility to investigate these matters whether or not the answers come from the county employees or other sources. He stated if the question is raised, the answer needs to be flushed out. There are a number of questions that have been raised regarding the cost of this project that have not been addressed. There are some other details of the operation questioned. Commissioner Rokosch felt these are valid questions and he has not seen them answered. Commissioner Rokosch questioned the liability and risk of the county going into the mining business and the safety concerns with those risks. He stated these are road operators not miners. Looking at it from a financial standpoint, does it make sense to do this? These are all concerns that need to be weighed starting with the numbers. David stated for a point of clarification, they are highly trained certified miners.

Pat Tucker asked David to confirm they would derive 25,000 cubic yards of riprap with 35,000 cubic yards of aggregate for Forest Service. Plus the crusher is a 2236 model with a 6 to 1 reduction ratio. David replied yes that is correct. She stated the amount of riprap

is to justify the amount being quarried. She would like to address a memo from David Ohnstad. She stated a person can look up what the machinery's capability is in the operation manual. The numbers she has found does not add up to David's proposal. She compared the numbers she found with those of the proposal. As a taxpayer, she is troubled by the fact that David presents something the operation manual states the machine is not capable of. She then presented the manual of the crusher and reiterated it cannot produce the amounts specified by David. Pat also stated it is the Commissioners' duty to question any Department Head.

Commissioner Driscoll stated Pat is a scientist. David advised Commissioner Grandstaff he has reviewed the operation of the crusher with the project manager who has over 40 years of operation and management of crushing experience. He recommended the Board come out to review the operation of crusher. He stated there is a scale on the crusher and these are professionally trained individuals. Pat replied according to the manual, the numbers are incorrect. She stated there is reasonable doubt to David's figures.

Mark noted in the November meeting David was anticipating 45 truck loads per year. Now it has changed to 120 truck loads per year. He stated David never has consistent numbers. David replied the numbers changed because of the concerns of truck traffic on the road.

Senator Jim Shockley stated the dialogue here today was productive, however he is concerned with the memo from David about Pat Tucker. He stated it was very inappropriate and it troubles him for a county employee to act that way towards a citizen. He requested the Commissioners not allow David to do something like that again without severe repercussions. David replied he does not believe he mentioned anyone by name. Jim replied to David that 'he has his answer'. Commissioner Rokosch replied he appreciates Jim's comments. He will investigate the cost effectiveness.

Robert Johnstone stated he has numerous experiences in cost effectiveness. He stated he has reviewed the quarry operation with the study done by the State of Montana. He stated decisions were made regarding the transportation study by the citizens and visitors to the State. He discussed the environmental aspects of the quarry and the safety of the road. He stated the road is dangerous. Montana needs to promote the tourism industry. He encourages the Board to read the executive summary of the study.

Holly Green stated her concern is the safety on Lost Horse Road regarding the heavy trucks on the road. She stated another concern is the cost effectiveness and the legal issues. She discussed the liability issues of operating the trucks. She stated the riprap discussed is a huge concern for the amount projected to be mined. She wants to preserve the pristine wildlife area. She thanked the Board for listening to her comments.

Katherine Smith stated she is a taxpayer. She stated until there is an agreement of the numbers from the Road Department and the numbers from Commissioner Driscoll and Pat Tucker, the taxpayers are going to be 'hopping mad'. This is a lot of money for the project. She stated until a reasonable set can be found, the taxpayers need to come first. It

is the job of the Board to make sure the numbers from the Road Department are accurate. David replied their estimates of what the county machinery can produce are from the County Road Foreman with over 40 years experience.

Susan Behrman stated this is the second time she has heard from Mr. Johnstone. She has a couple of questions. She asked David if the county ever generated their own riprap. David replied there was some in the past salvaged. Susan asked has the county built any bridges with the riprap in the past four years. David replied there have been no bridges done in the past four years. Susan stated there are concerns with Lost Horse Road handling the proposed heavy truck traffic on the road. She objects to the letter stating "there are hidden agendas" behind the citizen complaints. She objects to being told by David what her "hidden agenda" is.

Commissioner Chilcott made a motion to continue the update until January 11th at 9 a.m. Commissioner Rokosch seconded the motion, all voted 'aye'.

► In other business, the Board met for a decision on a grant application for Planning Workshops (Highway 93 Corridor). Present were Kierstin Lange, Kristine Komar, Dave Schulz, and Vicky Bohlig.

Commissioner Grandstaff called the meeting to order. She stated there are emails submitted by Planning Director Karen Hughes, Administrative Director Skip Rosenthal and Chris Duerksen from Clarion Associates in regard to this issue.

Kristine stated when they had left the last meeting Skip was going to write a letter of support. She spoke with him yesterday and the letter had not been drafted. She stated she would like to present a copy of the grant to the Board and address any concerns. Kristine stated the workshop is to look at the conceptual design of the highway corridor. She stated what they are trying to do is show everything they are thinking about in the proposal. She discussed the proposal for the grant (see attached) in detail. Kierstin stated she has spoken with Chris Duerksen, land use Attorney for Clarion Associates in the sense of being a possible speaker.

Kristine stated she is excited about this project. Commissioner Rokosch stated the partnerships iterated early on, only encourages future involvement. Commissioner Chilcott stated as this flushes out, he anticipates more groups wanting to participate. He stated the resources however, are very limited. He is disinclined to offer those resources because of the limitation. Commissioner Thompson stated his concerns were the utilization of time for Planning and the funding. He would do a letter of support, however; he is reluctant to "jump in with both feet". He stated he has not changed his view on the matter.

Commissioner Driscoll stated the issues need to be kept separate from the Planning Department. Kristine replied she is hoping to meet with Karen Hughes and have a discussion.

Commissioner Chilcott made a motion to submit a letter of support for the grant application for planning workshops for the Highway 93 Corridor. Commissioner Driscoll seconded the motion, all voted 'aye'.

1/4/08

YOUR TOWN: THE CITIZENS' INSTITUTE ON RURAL DESIGN

The BitterRoot Parkway, Ravalli County, Montana

2008 PROPOSAL

1. Sponsoring Institution/Organization

Ravalli County Commissioners, Ravalli County in partnership with the Bitter Root Cultural Heritage Trust (BRCHT), a non-profit established to work in partnership with families, neighborhoods, and communities to restore important historic structures, reestablish back traditional events and celebrations, encourage interpretation, and affirm cultural values.

BRCHT is committed to a community-based philosophy that includes:

- Building community capacity.
- Employing methods that include intergenerational teaching and learning.
- A commitment to engaging youth.
- And offering workshops as a means of outreach to community members and professionals alike.

2. Principal Organizers/Contacts

Kierstin Lange
310 North 4th Street
Hamilton, MT 59840
406 360.6266
FAX
klange1@qwest.net

Kristine Komar
PO Box 2185
275 Grundy Lane
Hamilton, MT 59840
406 360.7019
FAX
kristine.komar@att.net

3. Proposed Location of the Workshop

First Interstate Center (*tentative*) <http://firstinterstatecenter.com/index.html>
Ravalli County Fairgrounds
Hamilton, Montana 59840

4. Principal Issues and Problems to be Addressed.

The seven communities in the Bitterroot Valley struggle, as do many communities in the New West, to retain their identity, social fabric, and agricultural landscape and lifestyle during a period of intense growth and immigration.

Ravalli County, also like many counties in the Intermountain West, is behind the power curve in terms of providing effective mechanisms for absorbing growth, like zoning and planning, and so the fast growth currently presents big challenges. In particular, economic growth is not keeping pace with population growth.

Timing is always critical and the County is now working intensely to meet a deadline imposed by a ballot referendum brought by the people, to have basic zoning in place by November 2008. This is known as Phase I and will conclude in November with the Board of Commissioners decision to adopt the basic zoning plan. The process doesn't end then, it continues into Phase II where design standards for specific

elements, such as the highway corridor, streamside setbacks, and other important or unique situations in the valley that need special attention.

The *Your Town Workshop*, sets the stage for Phase II where design standards for the Highway 93 corridor will be developed. The workshop will bring together long time residents as well as veterans of the planning process to date to refocus their attention on a new Phase II project. This is a critical juncture, as the energy of the Phase I community planning committees (CPCs) will dissipate without a constructive engaging “next step” such as this workshop.

5. Proposed Faculty and Speakers

- Community Design Center at Montana State University School of Architecture, Bozeman
Tom McNab, Director www.arch.montana.edu/cdc.htm

Thomas McNab, AIA, CSI, LEED-AP, *Adjunct Professor MSU School of Architecture*
University of Oregon | Bachelor of Architecture | 1975

Thirty three years as a practicing architect in the states of Oregon, Washington, Idaho, and Montana with a wide variety of project types and scales. Director of the MSU School of Architecture Community Design Center (Center).

Ralph Johnson, AIA, *Professor MSU School of Architecture*
Columbia University NYC | Master of Science Urban Design | 1981
Columbia University NYC | Master of Science Building Design and Theory | 1981
University of Kansas | Bachelor of Architecture | 1970

Recent collaborator on the Sonoran Institute's book: “Building from the Best of the Northern Rockies”. Has extensive experience in planning and zoning design and implementation for small Montana communities. Past director of the Center.

William Pond, *Assistant Professor MSU School of Plant Sciences and Plant Pathology*
University of Colorado, Denver | Masters of Landscape Architecture | 1994

Has extensive experience in landscape architecture and planning with an emphasis in the community development process.

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Jones and Jones Architects and Landscape Architects, Seattle
Christopher Overdorf, Principal. (jonesandjones.com)

Chris, who was on the team that created ILARIS, will present the 'Intrinsic Landscape Aesthetic Resource Information System' which has been successfully applied to linear corridors, such as highways. Chris visited the Bitterroot to present ILARIS to a small group of conservationists several years ago. Timing is everything, and given the current zoning and planning project as well as the opportunity for a Your Town workshop, the time is right for more people to consider ILARIS.

The **ILARIS**© model (winner of the ASLA 2006 Professional Research Award of Honor (www.asla.org/awards/2006/06winners/403.html)) was developed to rapidly assess and communicate the intrinsic characteristic landscape forms that define a region's scenic character, assess the scenic value and cultural heritage of a region, and capture which of these features are most prized by the public.

Results of initial ILARIS©-based implementations show that once communities better understand the intrinsic character of a place they are more willing to adopt conservation strategies to protect them. Only a few people understand the scientific-based analyses typically used to identify areas to be conserved while most do not. This lack of understanding leads to reluctance and unwillingness to help steward conservation efforts. Since ILARIS© can capture and communicate the voice of the landscape, as well as capture what people value within the landscape, the model can truly facilitate landscape-level conservation plans that protect the intrinsic character of a region.

Highway 93 North and the Confederated Salish and Kootenai Tribes

U.S. Highway 93 is a 55-mile road traversing the Flathead Indian Reservation along the base of the Mission Mountains in western Montana. The area is inhabited by a wide variety of wildlife, including grizzly bear, white-tailed and mule deer, pronghorn, elk, painted turtles, and a number of fish and birds. It is also home to the Confederated Salish and Kootenai Tribes (CSKT).

Jones & Jones worked with representatives from the CSKT, the Montana Department of Transportation, and the Federal Highway Administration to design a reconstructed highway that is a "visitor" and is respectful of the land, the people, and the wildlife. Our approach focused on finding ways the land can shape the road, restoring fragmented habitat areas, respecting and restoring the way of life in rural towns, and giving visitors a better understanding of the place.

The final design alternatives developed for the project addressed lane configuration and alignment, interpretive opportunities, landscape restoration, close to 50 wildlife crossing structures, bike paths, scenic viewpoints, signage, and stormwater treatment. Special emphasis was placed on preserving and enhancing the authentic character of five small towns traversed by the highway. Jones & Jones arranged design studies

and workshops for community participation to facilitate the creation of a highway that seamlessly fits in with these towns' fabrics. The highway is currently under construction and is expected to be complete in 2009."

Tom McNab, Director of the MSU CDC is excited for his students to be exposed to Jones and Jones through this workshop.

- Montana Preservation Alliance, Helena
Chere Jiusto, Executive Director, www.preservemontana.org

Chere is very familiar with the Bitterroot Valley and is a key professional resource to the nascent Bitter Root Cultural Heritage Trust. She is a wonderful resource with breadth and depth in her field. She is adept at identifying practical opportunities to preserve historic structures and the context they occur within. MPA has a strong partnership with Montana's SHPO and members of the SHPO staff might also be appropriate presenters.

MPA's Technical Assistance Program

MPA's staff and/or cadre of volunteer historians, architects, city planners and other preservation-related professionals offer timely, direct assistance in a variety of locally tailored forms ranging from limited advisory services for specific historic sites to in-depth weekend workshops focusing on heritage tourism, downtown revitalization, local historic preservation planning, and other preservation-related topics.

- Montana Department of Transportation
Dwayne Kailey,
- Clarion Associates, Denver

Chris Duerksen, principal with Clarion Associates, was a presenter at the Weld County Your Town Workshop in 2007, so for brevity's sake, he is not further introduced here. Clarion is now contracted to assist Ravalli County, so Chris will be able to add much to the Bitterroot Your Town workshop both in terms of preparation, coordination with the planning calendar, helping design outcomes, and, of course, as a presenter.

- Art

It will be important to integrate art and artists into the BitterRoot Parkway and the Your Town workshop, preferably someone who can address integrating art into planning as well as help us better understand the concepts of public and environmental art. MSU's Creative Research Lab (CRLab) may present an opportunity for partnership.
<http://www.montana.edu/crlab/>

The Creative Research Lab (CRLab) is located within the College of Arts & Architecture (CAA), at Montana State University – Bozeman. Working with faculty and students of the College, the CRLab coordinates funded, applied research and creative projects that are multidisciplinary, and collaborative. In addition to the College's schools of Art, Music, MTA (Film, Video, Photography and Theater Arts) and Architecture, CRLab projects can include students and faculty from the other Colleges within the University, as well as University-level organizations.

- Land Use Law Clinic at The University of Montana School of Law, Missoula
Michelle Byran-Mudd, Director, www.umt.edu/law/clinics/land_use.htm

Ms. Bryan-Mudd hopes to continue work for Fall Semester 2008, Spring Semester 2009 and would be delighted to join the workshop team.

A group of students from the Land Use Law Clinic held a series of public meetings in early 2006 to gather input from the public on issues related to the current and future uses of land in the Highway 93 South Corridor. Their research is contained in the Executive Summary of Ravalli County Public Meetings on Land Use in the Highway 93 South Corridor. The current zoning timeline places creation and adoption of more specific zoning regulations, such as for the Highway 93 corridor, as part of Phase II of the Countywide Zoning Project. To that end, the students, working from their tentative goals, developed a draft set of design and development standards for the highway corridor that may be utilized when the project reaches that point. Follow the link below to the draft memos provided to the Planning Department:
<http://ravalliacounty.mt.gov/planning/ZoningHighway93.htm>

- Preliminary Workshop Agenda
Thursday, October 16 – Saturday, October 18 (*tentative*)
 - Thursday Afternoon/Evening:
 - Registration
 - Workshop Orientation, Kick-off
 - Reception / Dinner
 - Keynote Speaker, (Ed McMahon, Senior Fellow at the Urban Land Institute? His vast greenway experience with greenways would be valuable to this project and he is certainly inspirational.)
 - Friday, All Day
 - Workshop
 - Late Afternoon, Early Evening Field Trip
 - Choice of seeing the BitterRoot Parkway from another frame of reference: floating the river with a fishing guide or from an airplane piloted by a local aviator.
 - Saturday, All Day – Evening
 - Workshop
 - Break
 - 7pm Public Meeting to Share Key Points of the Workshop

6. **Proposed Strategy for Recruiting Participants.**

There are three distinct audiences for the workshop.

- Citizens who are non-design professionals and who have a desire to learn more about planning/zoning, design standards, landscape architecture, and historic preservation along the BitterRoot Parkway (Highway 93 in Ravalli County) and how community energy can be coalesced to help create successful futures for communities along and near to the BitterRoot Parkway.

- We have short distances to travel to the workshop, so we would like to offer overnight accommodations to only those participants who have longer and/or difficult travels. The funds saved from housing most of the participants will be used to accommodate interested design professionals in our community. It is our experience that County and town planning staff as well as local private sector architects and planners *need* to be in attendance so that they can better understand citizen interests and *capabilities*. In some cases, they will need the elements of the workshop education as much as non-professionals. Certainly they will appreciate the rare opportunity to be among such a bounty of talented presenters and the opportunity to understand first hand the interests of community members. If local professionals attend, they will be able to help support and encourage principles taught at the workshop long after the presenters return home.
- We also believe it important to invite County Commissioners, Town/City Council members, and selected agency officials (MDOT, Forest Service) etc.
- Highway 93 Advisory Committee
County Commissioners are currently considering the creation of a Highway 93 Advisory Committee. Should this group be commissioned, we have discussed with the Commissioners the possibility that the Committee could use the *Your Town* workshop as their seminal learning/training opportunity as well as to provide their priorities for follow-on work.
- The Community Planning Committees (CPCs)
www.ravallicounty.mt.gov/planning/ZoningWorkingGroups.htm.
The seven citizen committees established to guide the zoning process are organized by school district boundaries in Florence, Lone Rock, Stevensville, Corvallis, Victor, Hamilton and Darby. Participants are self-selected citizen working groups who meet regularly to work with County planners and consultants on issues that are relevant to their communities. The working groups have shown an appetite for learning about the planning/zoning process including the creation of design standards. The members of the CPCs are expected to informally share what they learn and discuss with their neighbors and representatives of each of the CPCs meet as needed. We plan to recruit at least two folks from each of the CPCs.
- Opinion Leaders, Civic & Social Opinion Leaders
The CPCs are organized by school districts as it is a tried and true method of organizing citizens groups in Ravalli County. This is because school district boundaries are in alignment with communities and human geography in the valley. In addition to CPC members, we will recruit one-on-one known civic and social opinion leaders. This will also bring a wide range of diversity to the workshop, which as in most areas, is critical if there is to be unified energy for action after the workshop.
- Business and Economic Development Leaders
The Ravalli County Economic Development Authority and the Bitterroot Valley Chamber of Commerce, and the Stevensville Main Street Association have agreed to support the workshop and will assist with recruiting a range of business owners and leaders to participate in the workshop. The concept of the Bitterroot Parkway resonates with the EDA and the Chamber as a way to help local communities benefit through enhanced tourism and other activities.

- **Youth**

As workshop organizers, we feel that it is critical to have youth involved in the workshop. Youth do not have the interest in an adult workshop so we will work in pre-workshop settings to prepare them for participation in certain aspects of the workshop (charrettes, for example) where they can be most successful. The Twin Creeks Community School, with youth aged 5-11 in attendance, will work with MSU CDC students prior to the workshop participating in data gathering and other prep work. CDC students will also work with the students in their classroom to help them prepare. Teacher, Steve Archibald, is excited for this opportunity for his students.

- **Potential Others**

- **USDA Forest Service**

There are several local national forests in the region as well as a Forest Service Regional office in Missoula. The Forest Service does quite a bit of work with visual quality assessment and so many have presenters to offer.

- **Sonoran Institute/Montana Smart Growth**
 - **O'Conner Center for the Rocky Mountain West**

- **Inclusive General Interest**

We will also offer the opportunity for individuals to express interest in attending.

7. Organizer Experience

Organizational duties will be the responsibility of a dynamic duo with many combined years of event and campaign experience.

Kierstin and Kristine will be well supported by an Workshop Organizing Committee composed of energetic folks with lots of experience in facilitating the success of local events.

Examples of Kierstin's most recent organizer experiences include:

- Client: **City Council Debate, October, 2007**
Kierstin's responsibilities included arranging this event for the Bitterroot Star, a local weekly newspaper, by contacting candidates, helping formulate questions, setting up the venue, and acting as media contact.
- Client: **Bitterroot Good Neighbors**
Outreach coordinator and steering committee members since January 2006. Organized small and large public meetings, rallies, marches, provided regular updates on planning issues, and coordinate the website.
- Client: **Citizens for a Safe Lab**
Public Education Campaign Organizer, 2004-5. Organized regular meetings with citizens and public officials and literature drops throughout the campaign and arranged large public meetings.

Examples of Kristine's most recent organizer experiences include:

- Client: **Spring Mountains National Recreation Area, Humbolt-Toiyabee National Forest**
Two-day OHV Workshop for 65 participants, November 2007, Pahrump, NV. Kristine's responsibilities included identifying the opportunity for the workshop, raising money for its delivery, and all organizational aspects from locating and reserving the meeting room and four meals, to coordinating the agenda as well as responsibility for ensuring that follow-on activities occur.
- Client: **USDA Forest Service Washington Office Recreation Shop**

Organized and coordinated a Sustainable Heritage Tourism Tour of Western North Carolina for a delegation of small town mayors and cultural heritage professionals from Abruzzo, Italy in September 2006.

- Client: Various

Kristine has over 25 years of experience providing leadership (planning and recruiting/training lead fundraising volunteer) and implementation for small to very large fundraising efforts.

8. Statements of Support

Statements of Support, attached, are from:

1. Ravalli County Board of Commissioners
2. City of Hamilton
3. Stevensville Main Street
4. Bitterroot Good Neighbors

9. Logistical Support

Coordination of the workshop will be provided by:

- Kierstin Lange, Bitterroot Good Neighbors (www.bitterrootgoodneighbors.com) and HIP, Inc.
- Kristine Komar, Bitterroot Cultural Heritage Trust and
- The Montana State University Community Design Center (Center)
 - Tom McNab and a team of students (3 to 4)

Kierstin and Kris have significant event coordination experience and have sophisticated computer networks at their disposal. They anticipate receiving donated and/or discounted products and services from the local print/copy shop, office supply stores, and equipment rental shops. Workshop projection equipment and computers are available for the workshop. They have already begun to develop a steering committee of hard working folks who will assist with recruitment and other duties, as needed.

Center students will focus on the following items:

1. Collaboration with Kierstin and Kris on the organization and content of the workshop.
2. Outreach activities to promote public participation including working with students at Twin Creeks Community School, design of promotional information, and meetings with community service groups, etc.
3. Design and production of the workshop binder and associated data gathering.
4. Compile data sources from all associated public and governmental parties to develop a structured data base for future retrieval and ease of analysis (as a sub component of the workshop web site.)
5. Develop any graphic information required to facilitate the workshop including computer generated drawings, graphs, photographs, etc.
6. Provide technical and physical support for presenters, fieldtrips, and other activities required to facilitate the workshop.

10. Proposed Source(s) of Matching Funds or In-Kind Services and Materials.

We expect to solicit cash gifts in the amount of \$12,500 and in-kind gifts in the same amount.

Cash gifts will be solicited after the grant is awarded. We anticipate gifts from:

Workshop Sponsors (\$1- 5,000)

- Ravalli County Bank
- Farmers State Bank
- Bitterroot Building Association (and/or individual developers)
- Montana Department of Transportation

Meal and Break Sponsors (\$250 – 500)

- Local small businesses, service groups, trade associations, and individual donors
- Bitterroot Chamber of Commerce
- Ravalli County Economic Development Authority
- Community Groups
- Forest Service

In-kind gifts and/or discounts will be solicited from:

- First Interstate Center (fee waiver for chair/table rental, catering kitchen use, and garbage service, etc.).
- Allegra Print & Imaging
- The Paperclip
- Catering service providers
- Bitterroot River Inn (sleeping rooms)
- Local river outfitters and pilots.
- Airport shuttle services (to reduce the use of rental cars and provide one-on-one time with presenters.)
- Professional time will be donated by:
 - County planners and planning consultant, *Clarion*
 - Workshop Presenters
 - Workshop Coordination

11. Follow-up to Workshop.

It is our plan for the workshop activities to develop a robust list of follow-on work that can take place after the workshop, including but not limited to:

- Widespread commitment from citizens, government agencies, and non-profit organizations to establishing the BitterRoot Parkway and working in collaboration to make it successful.
- A *Your Town~BitterRoot Parkway* website that will contain information from the workshop as well as the final report. Hopefully, the site will expand to become the portal for the BitterRoot Parkway.
- We envision continuing to work with MSU's Community Design Center. While individual CDC students will be involved in the preparation of and delivery of the workshop for a semester or two, the program director and other MSU professors and teaching staff involved will have established meaningful relationships in the Bitterroot and have gained a first hand understanding of how communities want to move forward. CDC students can continue to work with individual communities on implementation.

While Bitterroot Valley citizens, agencies and organizations –like most other communities-- struggles mightily with change, it also responds to inspiration and new knowledge and information. While we have not had the opportunity for multi-day workshops of this nature for locals, we do have a tradition of 'forums' where citizens can learn and interact together.

More and more often, it is this learning that stirs a deeper response. The most dramatic examples include:

- The 2006 passage of a \$10mm bond initiative for open space, an effort led by the ag community and the Bitter Root Land Trust. This grassroots effort was subtly urged along by a well-attended series of 'community forums' where presenters from the Sonoran Institute, Montana Smart Growth Alliance, O'Conner Center for the Rocky Mountain West, and the Blackfoot Challenge helped a diverse group of local citizens understand the opportunities and benefits for the protection of agricultural lands.
- More recently, a citizen inspired and led effort worked with County Commissioners to establish a working group to create stream side setback regulations.
ravallicounty.mt.gov/planning/StreamsideSetbackCommittee.htm

Attachments

- Three photos along Highway 93 in Ravalli County, the proposed BitterRoot Parkway.
Page 11
- BitterRoot Parkway Poster (image for position only)
Page 12
- Statements of Support for a *Your Town* Workshop
Page 13
- Montana State University, Community Design Center Information
Page 16

Three (x2) Photos



Yikes! intersection. Highway to be expanded to 4 lanes shortly. Given the background – what an opportunity to redevelop with beauty in mind!



Yummy backdrop and foreground has room for a vegetative buffer! Lots of miles of this.



Yikes! Gravel pit!



Yikes! Gravel pit redux!



Old bridge with mountains – more opportunity!



Driving into a Bitterroot winter sunset. Many miles of beautiful stretches, like this one, still exist.

BitterRoot Parkway Poster Concept (Image for position only.)



MONTANA'S BITTERROOT PARKWAY

Explore Highway 93 from Florence to Lost Trail

Recognizing the cultural, heritage and natural resources of the Bitterroot Valley along Ravalli County's self-designated Highway 93

www.BitterRootParkway.org

© Bitter Root Cultural Heritage Trust

Statements of Support for a *Your Town Workshop*

1) The School of Architecture Community Design Center at Montana State University, Bozeman

From: McNab, Thomas [tmcnab@montana.edu]
Sent: Thursday, January 03, 2008 1:03 PM
To: kristine.komar@worldnet.att.net
Subject: CDC participation in Your Town Workshop
Dear Kristine,

The School of Architecture Community Design Center at Montana State University is pleased to be part of the proposed activities with the Your Town Workshop during the up coming spring and fall semesters.

The topic of the workshop is of great interest and one of the focuses of our Center. We have commitments from a number of faculty with specific expertise in community and regional planning to help guide our students with the workshop.

We are excited to involve our students in this opportunity and bring their talents to the Bitterroot. The Center has committed a student team to participate in the workshop preparation during this semester and will commit another team in the fall to help facilitate the workshop.

Looking forward to working with your group.

Tom McNab AIA, LEED-AP
Director
MSU School of Architecture
Community Design Center

2) The University of Montana Land Use Law Clinic at the School of Law, Missoula

From: Michelle Bryan Mudd [michelle.bryanmudd@umontana.edu]
Sent: Thursday, January 03, 2008 11:08 AM
To: 'kristine.komar'
Subject: RE: Land Use Law Clinic

Kristine,

Thank you for the introduction. I am just now returning from the holiday break, so forgive the delay. The clinic is not currently doing Hwy 93 work, but I expect that we may return to the work sometime during the F2008-S2009 academic year if the county is ready to move forward then. If the grant covers that time frame, I think the clinic would be able to participate in the workshop in some capacity - thank you for thinking of us!

If the grant time frame works for next year and you want to discuss things further, I will be in my office this afternoon at 243-6753.

Michelle

3) Jones & Jones Architects and Landscape Architects, Seattle

From: Chris Overdorf [COverdorf@JonesandJones.com]
Sent: Thursday, January 03, 2008 2:52 PM
To: kristine.komar
Subject: RE: BitterRoot Parkway

Hi Kris,

The proposal is looking great. Yes - I would be honored to join the team and help you all with this project. Your representation of J&J and ILARIS looks great. However I would also add the US93 corridor project as another work example I can present.

I would also suggest mentioning my involvement with Scenic America - I don't think there is enough time to write Brad Cownoyer (Director of Scenic Conservation services) into the proposal but perhaps me being a member of their Board of Directors might help.

Best regards,

**christopher l. overdorf asla apa
principal**

jones & jones architects and landscape architects ltd
105 south main street suite 300 seattle wa 98104
p 206 624 5702 f 206 624 5923

ccoverdorf@jonesandjones.com
www.jonesandjones.com

***2008 Chapter President, Washington ASLA
2007-2009 Board Member, Scenic America***

4) Montana Preservation Alliance, Helena

From: Chere Jiusto [chere@preservemontana.org]
Sent: Wednesday, January 02, 2008 1:17 PM
To: 'kristine.komar'
Subject: RE: BitterRoot Parkway ~ Your Town Proposal

Hi Kris:

Sorry to miss your call earlier, this is a great proposal. I had the good fortune to be part of a Your Time workshop some years ago in Gallatin Gateway and found it a highly valuable gathering. We went on to stage a similar community workshop in Helena based upon those meetings.

I would love to participate in a BitterRoot Parkway dialog and will try very hard to accommodate this plan in my schedule. Our recent work here at MPA with regional cultural landscapes, heritage development and tourism is innovative and most applicable to the workshop you propose. Thank you for the opportunity to join together with community leaders in the Bitterroot to explore such options and opportunities for the valley.

Please let me know if there are other ways I can help out.

Happy New Year!

Chere

About MSU Community Design Center at the Montana State University School of Architecture

THE COMMUNITY DESIGN CENTER AT THE MONTANA STATE UNIVERSITY SCHOOL OF ARCHITECTURE

The Montana State University School of Architecture Community Design Center, established in 1976, fosters a collaborative interdisciplinary community/university partnership approach to the research and design of the built environment that serves the people of Montana. The goal is to assist community groups and non-profit organizations representing underserved areas or under funded projects and to work with State agencies, city departments and other regional governmental entities.

The Center operates as a cooperative design studio utilizing students from the Architecture and Landscape Architecture schools and is administered by a faculty member who is a registered Architect. Faculty members from each school are also involved as design advisors on individual projects.

The Center's focus is on enhancing the quality and visual character of the built environment. A broad range of past projects reflect this emphasis:

- Facility and infrastructure assessments.
- Schematic building designs.
- Feasibility studies.
- Planning for controlled growth.
- Community visioning documents.
- Historical preservation.
- Creating new economic opportunities.

While the Center assists communities and organizations in orchestrating specific interests and activities they envision, it also provides students with practical experience by:

- Sharing knowledge locally and regionally through community service
- Preparing students for professional leadership and lifelong learning in architecture, Landscape Architecture and related fields

- Preserving and developing knowledge for the profession through research and practice

The Center is committed to environmental sustainability and seeks opportunities to allow students a wide range of experiences to participate directly with communities in projects that are supportive of sustainable architecture and construction principles. The design studio affords students the opportunity to learn first hand of the complete design process, cutting across a range of social, environmental and physical issues.

Approximately 10 to 15 fourth year students participate in the Center's activities each semester. Student teams are assigned to each Center project. The teams manage their own projects and determine appropriate design proposals, research methods and production schedules with the assistance of the faculty advisors.

With rare exception the work done by the Center must be accomplished within the sixteen weeks of a normal academic semester. The Center director is responsible for selecting the design or research opportunities that most effectively enhance the students' educational experiences.

The students bring fresh ideas, creativity, enthusiasm, and respect for their client's insights and the unique character of the place they are working. This results in architectural solutions that respond to both the physical and cultural landscape and produces in-depth research and a design uniquely responsive to the client's needs and aspirations.

The Center is solely dependent on research grants and service contracts for its operational budget. Center fees include faculty time, studio operating expense, travel, meals, supplies, preliminary printing costs and reproduction of the final documents.

**YOUR TOWN
Pro-Forma Budget**

		Cash	In-kind	Notes
REVENUE				
	Your Town Grant	\$ 22,000		
	Contributions	\$ 12,500		
	Total Revenue	\$ 34,500	\$ 12,500	Guestimate
EXPENSES				
Outreach				
	Web Site	\$ 2,000	\$ -	
	Posters/Flyers	\$ 250	\$ -	
	Design	\$ 500	\$ -	
	Sub-total Outreach	\$ 2,750		
Workshop Expenses				
	Community Design CenterStudio Fee	\$ 3,500		
	Workshop Notebooks	\$ 2,100	\$ -	60 @ \$35
	Other Materials	\$ 2,000		
	Meeting Room	\$ 1,500	\$ 500	Tables, chairs, catering kitchen use, etc.
	Rentals	\$ 350		Tables, chairs, linens, etc.
	Documentation / Final Report (print + web)	\$ 1,500		100 @ \$10
	Fieldtrip		\$ 5,000	River float or airplane flight
	Sub-total Workshop Expenses	\$ 10,950		
Travel Expenses				
	Keynote Speaker	\$ 1,000	\$ -	4 nights
	MSU Community Design Center	\$ 3,000		Professors + Students
	Workshop Overnights	\$ 600	\$ -	~5 @ \$60/nt, 2 nts
	Workshop Instructors	\$ 3,500	\$ -	
	Travel Expenses Total	\$ 8,100	\$ -	

	Cash	In-kind	Notes
EXPENSES (continued)			
Meals			
Keynote Dinner	\$ 2,450	\$ -	70 @ \$32
Break Thursday	\$ 360	\$ -	60 @ \$6
Break Friday	\$ 360	\$ -	60 @ \$6
Break Saturday	\$ 360	\$ -	60 @ \$6
Breakfast Friday	\$ 600	\$ -	60 @ \$10
Breakfast Saturday	\$ 600	\$ -	60 @ \$10
Lunch Friday	\$ 720	\$ -	60 @ \$12
Lunch Saturday	\$ 720	\$ -	60 @ \$12
Picnic Friday	\$ 600	\$ -	40 @ \$15
Saturday Evening Community Meeting	\$ 500	\$ -	
Organizational Hospitality	\$ 500	\$ -	
Meals Sub-total	\$ 7,770	\$ -	
Professional Time			
Paid Workshop Presentors	\$ -		
Community Design Center Professors		\$ -	
Community Design Center Students		\$ -	
County Planning Office / Clarion		\$ -	
Workshop Presentors		\$ -	
Workshop Coordination		\$ -	
Sub-total Professional Time		\$ -	
Follow On Work			
10% of Total Revenue	\$ 4,700		Activities TBD
Total EXPENSES \$ 34,270			

January 4, 2008

Pat Tucker 363-7291

The Ravalli County Road & Bridge Department's October 2007 Lost Horse Quarry Operating and Reclamation Plan (Revised) (budget submitted separately 11/19/07) contains many omissions, inconsistencies and inaccurate numbers.

- 1) In order to justify opening the Lost Horse Quarry and crushing thousands of tons of gravel for the Forest Service, the Department grossly overestimates the amount of rip rap needed by the county. 25,000 cubic yards of rip rap could supply Ravalli County's needs for 200 years:**

Road Departments	Approximate Rip Rap Use	Notes
Missoula County Ph: 258-3773	90 cubic yards per year (25,000 cubic yards would last Missoula County 278 years)	Used total of 450 cubic yards in last 5 years for 7 projects
Lake County Ph: 883-7320	100 cubic yards per year (25,000 cubic yards would last Lake County 250 years)	If had good supply, could use 300 cubic yards/year
Flathead County Ph: 758-5790	200 cubic yards per year (25,000 cubic yards would last Flathead County 125 years)	County has 100 bridges, 700 culverts
Powell County Ph: 846-2153	100 cubic yards/bridge	Contracted with Buck Construction who used approx. 500 cubic yards for five bridges in 2007
Beaverhead County Ph: 683-3781	Hasn't used any for several years.	Might use 500 cubic yards for a really big project
Gallatin County Ph: 582-3250	*400 cubic yards in '06 (big project) *80 cubic yards in '07 *Average less than 200 cubic yards/year (25,000 cubic yards would last Gallatin County more than 125 years)	

Montana Department of Transportation Ph: 444-6267	*13,300 cubic yards statewide in 2005 *9,500 cubic yards statewide in 2006	
Montana Department of Transportation Ph: 444-6246	229 cubic yards for a 75 foot bridge NE of Sula spanning the East Fk of the Bitterroot	
Ravalli County	*Estimates 860 cubic yards for Kootenai Creek Bridge *Wants to stockpile 25,000 to 35,000 cubic yards (altered to 12,500 on 12/31/07)	Department personnel estimates County uses about 100 cubic yards/year

- 2) **Safety concerns could add significantly to costs or make the project impossible:** There is no assurance that the Mine, Safety and Health Administration (MSHA) will okay work at the Lost Horse Quarry without costly or impossible fixes. Working under a high wall poses danger from falling rock. The County will need to notify MSHA within ten days of beginning work at the site. If MSHA does not consider the site safe, it could require expensive "fixes" such as netting or blasting to "step back" the face and shorten it. The county should conduct a thorough evaluation of that aspect before costly mobilization of equipment to the site is undertaken.

- 3) **The budget figures are inconsistent and inaccurate. When more realistic numbers are used, the project is not economically sound:**
 - a) The Plan consistently states that 35,000 to 45,000 cubic yards of aggregate will be produced for the Forest Service (pages 1, 9 & 10). The accompanying November 19 budget. (see attachment, page 1) says 35,000 tons and figures the cost of the aggregate from that number. If 35,000 cubic yards is the accurate number, the County will actually be producing 47,250 tons (1.35 tons/cubic yard) of aggregate for the Forest Service.

 - b) As with August 2007 Lost Horse Quarry Proposal, the amount it will cost the county to crush aggregate (\$2.60/ton – see attachment, page 2) is grossly underestimated. \$5.50/ton* is less than the true cost. Using this low but more reasonable amount, it will cost the County \$259,875.00 to produce 47,250 tons of aggregate for the Forest Service rather than the November 19 budget's \$91,000.00.

c) The proposal claims that the county can produce rip rap at 65 cubic yards/hr at a cost of \$90.00/hour (\$1.38/cubic yard). There is no supporting data as to where these numbers come from. Given that rip rap is selling commercially for \$18.33/cubic yard and given the department's underestimation of the cost of producing aggregate, it is difficult to believe that this number is not also very low. If the cost is doubled to \$2.76/cubic yard, it will cost the county \$69,000.00 to produce 25,000 cubic yards of rip rap.

d) \$259,875 (aggregate production) + \$69,000.00 (rip rap production) + \$41,500.00 (LH road improvement) = \$481,175.00. This is more than the \$458,250.00 it would cost the county to purchase 25,000 cubic yards of rip rap commercially.

- 4) It would make much more financial sense for the county to invest the \$481,175.00 the Quarry project will cost and buy the few hundred cubic yards of rip rap needed annually with a portion of the interest. If the county did this, there'd be a tidy nest egg in the account after a couple hundred years.
- 5) Another fiscally responsible alternative is to simply buy the rip rap commercially on an annual basis. At 150 cubic yards/year, over a twenty year period that would cost approximately \$55,000.00 -- far less than the \$259,875.00 it will cost the county to produce aggregate for the Forest Service under this proposal.
- 6) It goes without saying that the \$40,000.00 the Forest Service proposes to pay the county does not make this project financially solvent.
- 7) **The budget is rife with mathematical errors and inconsistencies. This is unprofessional and leads to costly mistakes. Examples are:**

- a) The proposal calls for 25,000 to 35,000 cubic yards of rip rap to be removed over five years (5,000 to 7,000/year). The December 31 memo says 2,500 cubic yards will be removed per year (12,500 cubic yards total). Is this a new number (which necessitates a new budget) or a failure to correctly divide 25,000 cubic yards by five years?
- b) The October 07 proposal (pages 1, 9, & 10) says 35,000 to 45,000 cubic yards of aggregate will be crushed for the Forest Service. The November 19 budget says 35,000 tons. Is that an error in labeling the unit or is it a new number? Tons and cubic yards are not equal. One cubic yard of gravel equals approximately 1.35 tons of gravel.
- c) Given the rates and cost/hr, the total cost of the rip rap was incorrectly calculated.
- d) The top part of the November 19 budget computes rip rap production at 65 cubic yards/hour. The bottom part of the budget computes rip rap production at 65 tons/hour. Which is it? Again, tons and cubic yards are not equal.

8) **The last minute reduction in the amount of rip rap to be extracted makes the project even less cost effective.** On 12/31/07 the Road Department produced a new memo stating that 2500 cubic yards of rip rap would be extracted annually over five years (12,500 cubic yards total). Given that this figure is not a math error, but is instead a corrected figure of what the county really intends to remove, the cost of the project would be: \$259,875 (aggregate production for Forest Service) + \$34,500.00 (rip rap production) + \$41,500.00 (LH road improvement) = \$335,875.00. The cost of purchasing 12,500 cubic yards of rip rap commercially (\$18.33/cubic yard) is \$229,125.00.

*Among other items, inefficiency is not figured into the \$495.00/hour. At 90% efficiency (extraordinary efficiency for a construction operation), the cost is \$550.00/hour. According to the Terex Cedar Rapids Manual, at a closed stroke jaw opening of 6 inches, the county's Cedar Rapids 2236 Jaw Crusher crushes between 135 and 265 tons/hr (average is 200 tons/hour). However, to obtain 2 ½ inch aggregate, the majority of material will have to be crushed twice (and some three times). The result of this recrushing will be a finished product rate of possibly 100 tons/hour. \$550.00/hr @ 100 tons/hr = \$5.50/ton

RAVALLI COUNTY ROAD & BRIDGE DEPARTMENT
ESTIMATED BENEFIT TO RAVALLI COUNTY
REVISED LOST HORSE QUARRY PROPOSAL
NET VALUE OF RIP RAP MATERIALS FROM QUARRY

25,000 YARDS³ @ \$18.33 / YARD³ \$458,250.00

ESTIMATED PRODUCTION COSTS OF ROADWAY AGGREGATE

35,000 TONS @ 2.60 / TON (\$ 91,000.00)

ESTIMATED COST OF PROCESSING RIP RAP MATERIALS

25,000 / 65 YARDS³ / HOUR @ \$90.00 (\$ 34,650.00)

ESTIMATED COST OF PLACING 6" BASE COURSE

2.41 MILES LOST HORSE / 18' WITH PULLOUTS (\$ 41,500.00)

NET VALUE TO RAVALLI COUNTY	\$291,100.00
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35,000 YARDS³ @ \$18.33 / YARD³ \$641,550.00

ESTIMATED PRODUCTION COSTS OF ROADWAY AGGREGATE

35,000 TONS @ 2.60 / TON (\$ 91,000.00)

ESTIMATED COST OF PROCESSING RIP RAP MATERIALS

35,000 / 65 TONS PER HOUR @ \$90.00 (\$ 48,600.00)

ESTIMATED COST OF PLACING 6" BASE COURSE

2.41 MILES LOST HORSE / 18' WITH PULLOUTS (\$ 41,500.00)

NET VALUE TO RAVALLI COUNTY	\$460,450.00
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RAVALLI COUNTY ROAD & BRIDGE DEPARTMENT

PRODUCTION & VALUE ESTIMATES

LOST HORSE QUARRY PROPOSAL

PRIMARY CRUSHING PLANT OPERATION

D8K CRAWLER TRACTOR (50%)	\$ 60.00
JOHN DEERE 744 WHEEL LOADER	\$ 75.00
HEWITT ROBBINS TRAP	\$ 35.00
CEDAR RAPIDS JAW CRUSHER	\$110.00
ELECTRICAL / CONTROL VAN	\$ 15.00
POWER PLANT TRAILER	\$ 85.00
STACKING CONVEYOR	\$ 35.00
DISCHARGE CONVEYOR	\$ 15.00
CREW TRUCK	\$ 13.00
CREW LEADER	\$ 27.00
EQUIPMENT OPERATOR	\$ 25.00
	<hr/>
	\$495.00 / HOUR

@ 225 TPH = \$2.20/TON

MOBILIZATION

LOWBOY TRACTOR	\$ 31.00 X 40 HRS	\$1240.00
LOWBOY TRAILER	\$ 10.00 X 30 HRS	\$ 300.00
CREW TRUCK	\$ 13.00 X 50 HRS	\$ 650.00
EQUIP OPERATOR (2)	\$ 50.00 X 50 HRS	\$2500.00
CREW LEADER	\$ 27.00 X 50 HRS	\$1350.00
		<hr/>
		\$6040.00

@ 15,000 TON = 0.40

COST OF PRODUCTION (LOST HORSE QUARRY)

\$2.60 / TON

\$2.60 x 35,000 TONS = \$91,000.00